



PES & Soil Health Working Group

Setting the stage for our work in fall
2022



Looking back at progress so far

2020-2022

Legislative charges



Identify **agricultural standards or practices** that farmers can implement that improve soil health, enhance crop resilience, increase carbon storage and stormwater storage capacity, and reduce agricultural runoff to waters;



Recommend existing financial incentives available to farmers that could be modified or amended to incentivize implementation of the agricultural standards identified



Propose new financial incentives, including a source of revenue, for implementation if existing financial incentives are inadequate or if the goal of implementation of the agricultural standards would be better served by a new financial incentive; and



Recommend legislative changes that may be required to implement any financial incentive recommended or proposed in the report.

2019 Work

- Held webinars on:
 - Vermont Healthy Soils Coalition
 - CASH Test
 - Pilot-testing pay-for-performance conservation
 - Challenges of designing a PES system
 - Farmer-led measurement and measurement synthesis
 - Ecosystem Services Marketplace
- Discussed range of issues from philosophical to tactical
- Developed Recommendations for Legislature

January 2020 – Report to the Legislature, with recommendations:

1. **Charge and resource this Working Group** over the next two years to explore and advance transformative investment in agriculture's role to rebuild the natural capital of Vermont.
2. **Advance our understanding** of soil health and the services it provides.
3. **Review, evaluate, and integrate existing tools** for PES monitoring and modeling and also **identify new tools** and their potential for use in Vermont.
4. **Support** the tailoring or advancement of **new emerging tools or programs**.
5. **Advance the design and development of PES approach(es)** that regrow or sustain our natural capital so that it provides at least three ecosystem services: water quality, flood resilience, and climate stability.
6. **Refine and evolve the Vermont Environmental Stewardship Program (VESP)** to allow continued joint learning and engagement with farmers around PES.
7. **Maximize access and use of existing programs** to ensure farmers have capital to continue to implement practices or actions that lead to increased ecosystem services.
8. **Seek additional grant opportunities**, where feasible, to advance the vision of the Working Group during its chartered lifetime.

2021 Spring/Summer Work (after 2020 hiatus)

- Task groups worked on:
 - Soil health
 - What and how to measure
 - Economics
 - Considering valuation and incentives
 - Program development
 - Reviewing existing practices and programs as launch pad to PES approach
- Initial Scoping of Research Needed (UVM work)
 - Engaged with NRCS on agroforestry practices
 - AAFCM contracted with UVM+ for work

Fall 2021 to Spring 2022

- Farmer developed proposal presentations:
 - CSP+
 - Observed Metrics Approach
 - VT Healthy Soil Protection & Restoration Act
 - AND learned from SWCD examples of farm challenges
- Various presentations to the WG on topics including:
 - Related VAAFM and NRCS programs
 - Biodiversity metrics
 - CA Healthy Soils Program

2021-22 – UVM Research Work for the PES WG

1. Measuring ecosystem services from soil health
2. Soil health scenarios for Vermont
- 3a. Farmer PES survey results
- 3b. Technical service provider Interviews (forthcoming)
- 3c. Farmer interviews
4. Economic cost of practices (and spreadsheets with scenarios)
5. Valuation of ecosystem services from soil health
6. Review of PES programs
- 6b. Farmer PES concepts
7. Whole farm approaches to net-zero
8. Program design issues & recommendations
- * Final summary report (forthcoming)

March-June 2022 – WG outlined its program framework, with goals

- **Compensate farmers** for providing clearly defined ecosystem services;
- Ensure that metrics and associated compensation are clearly and directly linked to the specific, quantifiable ecosystems services of **carbon storage, nutrient, soil retention, stormwater retention, and ability to support biodiversity**;
- Identify and pay for ecosystem services that could be provided by **farms of diverse types and sizes**, including those currently and historically underserved by payment programs;
- Be **efficient** with time and funding to ensure that a high return is provided to the farmer and society; and
- **Continually improve** both research and the program to support agricultural innovation, adaptive management and development of new practices and tools.

Summer 2022

- AAFM and subgroup developed 3 options (some with 2 parts) pilot built from the PES Work Group and UMV work:
 1. Soil measurement (CASH test and bulk density)
 2. Modelling
 3. In-field observations (with & without modelling component)

*Note that VAAFMM developed the draft approaches independently, but they can be combined with each other in a **hybrid** approach.

Major tasks for the rest of 2022

Detailed program advice and support for a way forward on a pilot PES program for 2023 using the \$1 million in the FY 2023 budget

A report to the Legislature from the Working Group due January 15, 2023

Considerations

- The Working Group outlined objectives for the program and pilot in its June 2022 program objectives document
- AAFM and the Planning Group advanced three broad options (with some variants) for PES WG consideration now (to be reviewed today)
- These options could be HYBRIDIZED into a pilot program
- We have a BIODIVERSITY matrix we might consider for additional supplemental actions
- We know that WHOLE FARM/REGENERATIVE AG is important and may not fully be address by the pilot
- CARBON is an important component given the Climate Council and SOIL HEALTH as a recurrent theme to important ends

Caveats

- PES by its definition is **transactional**: it is identifying human valued services, valuing those services, and then paying farmers to produce those services
- Most PES programs we learned are focused **on one or a few** at most services – too many can lead to too much complexity
- Programs may **reach many but not all farms** if designed well and some may be harder to reach than others
- Existing or different programs may address **additional issues** this group also cares about better: 1) whole farm across agriculture, forestry, and nature; 2) regenerative ag and highly diversified farms
- Getting funds **into farmers hands** now is important to many
- What we **cannot get done** this Fall we can RECOMMEND to the Legislature for further action (and/or suggest for NRCS, private programs, etc.)



Pilot program options - AAFM

Fall Timeline

WHEN	WHAT	WHO
20 September	Meet for longer time to learn, explore, and discuss pros and cons of each of the program options	PES WG (virtual)
4 October	Meet to review draft slide presentation to engage with constituencies	PES WG (virtual)
5 October to October 31	Engage constituencies (watershed alliances, organic producers, vegetable and berry growers, technical service providers) with a common presentation and feedback from	PES WG members individually with their constituencies
1 November (TBD on date)	Meet to hear feedback and input, workshop integrated program options based on the June Framework, the Three Program Options, and the constituency feedback	PES WG All Day In-Person Workshop
2 November to 29 November	Take all input to devise integrated program design	Coordinating Group of the PES WG
2 November to 29 November	Draft final report to the legislature	CBI
29 November	Meet to review, discuss, final pilot program design	PES WG
13 December	Meet to finalize pilot program and comment on final report that will include a recommendation for periodic WG meeting/check-in schedule focused on program updates and continuous improvement	PES WG
31 December	Submit final report to WG and AAFM for final comment	CBI
7 January	Submit final report to AAFM for Legislature	CBI
January to December 2023	Periodic WG review of the program pilot	PES WG

Constituency outreach - October



WG members present program options to their constituencies (watershed alliances, organic producers, vegetable and berry growers, technical service providers)



WG members use common slide deck/talking points, questions for feedback, and form/method for collecting feedback